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## Undergraduate Research Assistant Wins a EURP Award | EED

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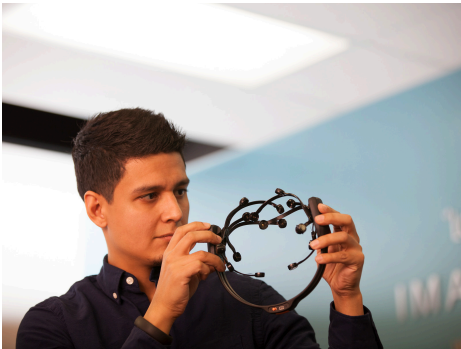
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# Undergraduate Research Assistant wins a EURP award | EED

02/18/2016



Jorge Espinoza, an undergraduate research assistant working with Dr. Idalis Villanueva in Engineering Education has been awarded a College of Engineering Undergraduate Research Program (**EURP**) award for the 2016-2017 academic year to conduct research in developing MATLAB codes to real-time biometric data used in the classroom. Biometrics involves the analysis of metrics reflective of human characteristics. An example of a metric can be physiological markers such as skin temperature and electrodermal activity or biological markers such as hormonal levels.

Particularly, Jorge will analyze electrodermal activity (EDA) data which looks at microscopic amounts of sweat secreted from the skin and is related to the autonomic nervous system (ANS). When a person becomes nervous or anxious about a task, their palms become sweaty. Therefore, emotional regulation and cognitive processes, among other brain functions, can influence the control of sweating. EDA is widely considered as a proxy for quantifying stress level or cognitive load. This work aims to tie in how stress levels influences cognitive performance during representative engineering classroom activities. Jorge hopes to present his work at representative Engineering Education conferences and in the Undergraduate Conference for Undergraduate Research Conference (UCUR) this coming year.